

Utilization of Health Facilities for Under-five Children with Diarrhea in Indonesia: Data Analysis of the IDHS 2017

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Abstract- According to the report issued by the *Directorate General of Disease Control and Environmental Health*, diarrhea is the second leading cause of death among children under-five in Indonesia after pneumonia, with a proportion of 17.4 percent in postneonatal and 13.3 percent in infants. The proportion of children under-five with diarrhea those receiving treatment at a health facility has increased from 65 percent in the 2012 IDHS report to 80 percent in the 2017 IDHS report. The health system in Indonesia is a combination of service providers by the government and private sector. This study aims to obtain the determinants of the use of health facilities for children under-five with diarrhea in Indonesia. This study is a further data analysis from IDHS 2017. This study was an observational analytic study with a cross-sectional design. The sample in this study were children with diarrhea aged under-five years (0 - 59 months) who received treatment at the health facility within two weeks before the IDHS 2017 interview day, with a total sample of 1314 children under five. The data in this study were analyzed using multiple logistic regression. The results of this study indicate the use of previous health facilities (facilities where children are born) and the socioeconomic status of the mother is related to the utilization of health care facilities in children-under five with diarrhea. Children under-five with diarrhea those born in private health, the facility has a smaller chance (AOR: 0.39; 95% CI: 0.26-0.60) to receive treatment at a government health facility during diarrhea, in other words, children under-five with diarrhea those born in private health care facilities have 2.5 times the chance to get treatment at private health care facilities compared to children under-five those born at home. Children under-five with diarrhea from mothers with the highest socioeconomic status have a smaller chance (AOR: 0.13; 95% CI: 0.07-0.25) to get treatment at the government health facility, in other words, children under-five with diarrhea from mothers with the highest socioeconomic status has a 7.69 times chance of getting treatment at a private health facility compared to children under-five who came from mothers with the lowest socioeconomic status.

Keywords: Diare, balita 0 – 59 bulan, fasilitas kesehatan, IDHS

I. INTRODUCTION

Each year diarrhea causes of mortality in 525,000 children under-five and an estimated 1.7 billion cases of diarrheal disease are experienced by children in the world [1]. Diarrhea is the second leading cause of mortality in children under five in Indonesia after pneumonia, with the proportion of causes of death as large as 17.4 percent in postneonatal and as much as 13.3 percent in infants [2]. There has been a decrease in the Case Fatality Rate (CFR) of diarrhea in Indonesia between 2016 and 2017, which was 3.04 percent to 1.97 percent [3]. Over the past few decades, there has been a decrease in total global deaths from diarrhea, but morbidity due to diarrhea has not shown the same result [1].

Although diarrhea is easily treated and managed, diarrhea is still one of the public health problems in Indonesia, especially in infants and toddlers. According to a report from the Indonesian Demographic and Health Survey in 2017, there was 14 percent of children aged 0-59 months suffered diarrhea in the two weeks before the survey. The percentage of children under five suffering from diarrhea and receiving treatment at health facilities increased from 65 percent in the 2012 IDHS to 80 percent in 2017 IDHS [4].

The current health system in Indonesia is a combination of service providers by the government and the private sector [5]. The concept of health and sickness in the community determines the utilization of health service facilities. The utilization of health services is influenced by many factors. According to Anderson (1974) in Notoatmodjo (2003), there are three categories of individual determinants in utilizing health service facilities, namely: predisposing, enabling, and need. Predisposing is the tendency to utilize health services inherent in individuals. Individuals may use health services based on demographics, position in social structures, and belief in the benefits of health services. Enabling, this category includes resources in the family and community. Family resources consist of economic status and location of residence community resources combine with access to health care facilities and the availability of people to help. Need, this category includes perceptions of health service needs, whether individual, social, or clinical that are evaluated by perceptions of needs [6].

Based on the description above, this study aims to obtain determinants of the utilization of health care facilities for children under-five who had diarrhea in Indonesia from 2017 IDHS data, which is expected to produce important information in order to support

one of the government's strategies to achieve policy objectives to reduce morbidity and mortality rate due to diarrhea, through the management of standardized diarrhea sufferers in health care facilities.

II. MATERIAL AND METHOD

For this study, data were obtained from the 2017 Indonesian Demographic and Health Survey (IDHS). The Indonesian Demographic and Health Survey (IDHS) was jointly conducted by the United States Agency for International Development (USAID), Central Statistics Agency (BPS), the National Population and Family Planning Agency (BKKBN), and the Ministry of Health (Kemenkes) the Republic of Indonesia which can be downloaded from the source www.measuredhs.com. The population in this study were all children aged 0 - 59 months from female respondents who took part in the 2017 Indonesian Demographic and Health Survey [4].

The population in this study is households that had children aged less than 5 years with diarrhea were extracted from the 2017 Indonesian Demographic and Health Survey (IDHS). The sample in this study was children aged 0 - 59 months who issued diarrhea within a span of two weeks before the interview day for the 2017 Indonesian Health Demographic Survey. The number of samples in this study were 1314 children.

The dependent variable in this study is the utilization of health service facilities which are divided into two categories "0 = private health facilities" and "1 = government health facilities". The independent variables in this study are predisposing factors and enabling factors. Predisposing factors included in this study were maternal age (0 = 15-24 years; 1 = 25-29 years; 2 = 30-34 years; and 3 = 35 - 49 years), mother's education level (0 = none; 1 = primary; and 2 = secondary/higher), mother's occupation (0 = housewife/not working; 1 = agriculture; 2 = semi-skilled/unskilled labor; and 3 = professional / technician), marital status (0 = not married; and 1 = married), age of child (0 = <1 year; 1 = 1-2 years; and 2 = ≥ 3 years), sex of child (0 = male; and 1 = female), family size (0 = <6 people; and 1 = ≥ 6 people), previous use of health service facilities (0 = home; 1 = government facility; and 2 = private facility), and knowledge of Oral Rehydration Solutions (0 = don't know; 1 = have heard; and 2 = have used). Enabling factors included in this study are socioeconomic status (0 = lowest; 1 = lower; 2 = middle; 3 = higher; and 4 = highest), health insurance ownership (0 = do not have; 1 = social health insurance; 2 = government health insurance; and 3 = private health insurance), residential area (0 = Rural; and 1 = Urban), access to media information (0 = no; and 1 = yes), and distance (0 = problem; and 1 = no problem).

The stages in data management carried out in this study are data filters, the data obtained are filtered and adjusted to the inclusion and exclusion criteria of the study. If the respondent does not match the inclusion criteria and according to the exclusion criteria, they will be excluded from the data set. Cleaning data, double-checking filtered data. Missing data in variables that contribute to the dependent variable of the study will be adjusted to the provisions of handling missing data in the IDHS survey data. Recode data, the activity of changing the encoding data following the classification specified in the study. Activities create new variables from variables that exist in the data set. After the data management stage is carried out, the data obtained are analyzed including univariate, bivariate and multivariate analyses with a significance of 5% and 95% confidence intervals. At the bivariate analysis stage, the output of the dependent and independent variables is explained in the form of proportions. The bivariate analysis uses simple logistic regression while multivariate analysis uses multiple logistic regression.

III. RESULTS UNIVARIATE

Need Factor

Table 1. Health facilities utilization of children under-five with diarrhea in Indonesia 2017

Health Facilities	n	%
Private Health Facilities	733	55,8
Government Health Facilities	581	44,2
Total	1314	100

In this study, the variables of health facilities visited for treatment when children under five suffer from diarrhea come from the 2017 IDHS questionnaire in the form of the question "*Where did you first seek help/care when a child had diarrhea?*". Based on respondents' answers to the questions on the questionnaire, the category of health facilities that were first visited when a child had diarrhea was divided into two groups of health facilities, private health facilities and government health facilities. According to the 2017 IDHS report, 80 percent of children under five suffer from diarrhea and receive treatment at a health facility. In this study, it was found that 55.7 percent of children under five suffering from diarrhea received treatment at private health facilities, while 44.3 percent received treatment at government health facilities.

Predisposing Factors

Table 2. Characteristics of Health facilities utilization of children under-five with diarrhea Based on Predisposing Factors in Indonesia 2017

Variable	n	%
Maternal Age		
15 - 24 years	334	25,4
25 - 29 years	348	26,5
30 - 34 years	309	23,5
35 - 49 years	323	24,6
Mother's Education		
None	9	0,7
Primary	403	30,7
Secondary/higher	902	68,6
Mother's Occupation		
Housewife/Not Working	673	51,2
Agriculture	128	9,8
Semi-Skilled/Unskilled Labor	450	34,3
Professional/Technician	63	4,8
Marital Status		
Not Married	51	3,9
Married	1263	96,1
Age Of Child		
< 1 years	231	17,6
1 – 2 years	734	55,8
≥ 3 years	349	26,6
Sex of Child		
Male	671	51,1
female	643	48,9
Family Size		
< 6 People	828	63
≥ 6 People	486	37
Previous Use Of Health Service Facilities		
Home	278	21,2
Government Health Facilities	432	32,9
Private Health Facilities	604	46
knowledge of Oral Rehydration Solutions		
Don't Know	75	5,7
Have Heard	513	39,1
Have Used	726	55,2

The results in table 2. show the proportion of children under-five with diarrhea who received treatment at a health facility based on predisposing factors. Based on variables of the mother's age group, the largest proportion of children under-five with diarrhea who received treatment in health facilities comes from mothers in the age group of 25-29 years (26.5 percent). Meanwhile, the smallest proportion of children under-five with diarrhea who received treatment at a health facility comes from mothers in the age group 30-34 years (23.5 percent). Mother's education, the largest proportion of children under-five with diarrhea who received treatment at a health facility came from the group of mothers with secondary/higher education (68.6 percent), while the smallest proportion came from the group of mothers who did not attend school (0.7 percent). Mother's occupation, the largest proportion of children under-five with diarrhea who received treatment at a health facility based on mother's work came from the group of housewives/unemployed (51.2 percent), while the smallest proportion came from the group of mothers who worked as professionals and technicians (4.8 percent). Mother's marital status, the largest proportion of children under-five with diarrhea and getting treatment in health facilities come from the group of mothers with marital status (91.6 percent). Age of child, the largest proportion of under-fives with diarrhea and receiving treatment in health facilities comes from the child in the 1-2 years age group (55.8 percent), while the smallest proportion comes from the under-five age group < 1 year (17.6 percent). Sex of child, the largest proportion of children under-five with diarrhea and getting treatment at a health facility based on sex comes from the group of children under-five who are male (51.1 percent). Family size, the largest proportion of children under-five with diarrhea and receiving treatment at a health facility comes from a household group of < 6 people (63 percent). Using previous health facilities (delivery places), the largest proportion of children under-five with diarrhea who received treatment at health facilities came from the group of mothers who gave birth to children in private health facilities (46 percent), while the smallest proportion came from the group of women who gave birth at home (21, 2 percent). Knowledge of oral rehydration solution, the largest proportion of children under-five with diarrhea who received treatment in health facilities came from the group of mothers who had used oral rehydration solutions when the child suffered diarrhea (55.2 percent), while the smallest proportion came from the group of mothers who did not know about oral rehydration solutions (5.7 percent).

Enabling Factors

Tabel 3 Characteristics of Health facilities utilization of children under-five with diarrhea Based on Enabling Factors in Indonesia 2017

Variabel	n	%
Socioeconomic Status		
Lowest	290	22,1
Lower	302	23
Middle	279	21,2
Higher	274	20,9
Highest	169	12,9
Health Insurance Ownership		
Don't Have	546	41,5
Social Health Insurance	294	22,3
Government Health Insurance	453	34,5
Private Health Insurance	21	1,7
Residential Area		
Rural	742	56,5
Urban	572	43,5
Access To Media		
No	197	15
Yes	1117	85
Distance		
Problem	151	11,5
No Problem	1163	88,5

Based on the results shown in table 3, the largest proportion of children under-five with diarrhea who received treatment at a health facility came from the lower group (22.1 percent), while the smallest proportion came from highest group (12.9 percent). Health insurance ownership, the largest proportion of children under-five with diarrhea who received treatment at a health facility comes from the group of mothers who do not have health insurance (41.5 percent), while the smallest proportion comes from the group of mothers who had private health insurance (1.7 percent). Residential area, the largest proportion of children under-five with diarrheawho received treatment at health facilities comes from the group of mothers who live in rural areas (56.5 percent). Access to media, the proportion of children under-five with diarrhea who received treatment at a health facility comes from a group of mothers who watch television at least once a week (85 percent). Distance, the largest proportion of children under-five with diarrhea who received treatment at a health facility comes from the group of mothers who stated that distance to health facilities was not a problem (88.5 percent).

BIVARIATE

Relationship between Predisposing Factors and Utilization of Health Care Facilities for Children Under-five with Diarrhea in Indonesia 2017

Maternal age, there is no significant difference in proportion between the age group of mothers with the utilization of health care facilities for children under-five with diarrhea (p -value = 0.573). Mother's education, there is a significant difference in proportion between the level of mother's education and the utilization of health care facilities for children under-five with diarrhea (p -value = 0.001). Mother's occupation, there is a significant difference in proportion between the types of mother's occupation and the utilization of health care facilities for children under-five with diarrhea (p -value = 0.001). Marital status, there is no difference in the proportion between maternal marital status and the utilization of health care facilities for children under-five with diarrhea (p -value = 0.065). Age of child, there is a significant difference in proportion between the age of children in the group ≥ 3 years with the utilization of health care facilities for children under-five with diarrhea (p -value = 0.042). Sex of child, there is no significant difference in proportion between the sex of children under five with the utilization of health care facilities for children under-five with diarrhea (p -value = 0.678). Family size, there is no difference in the proportion between family size and the utilization of health care facilities in children under-five with diarrhea (p -value = 0.069). The use of previous health facilities (delivery places), there is a significant difference in proportion between the utilization of previous health care facilities or the place where the child were born and the utilization of health care facilities for children under-five with diarrhea (p -value = 0.001). Knowledge of oral rehydration solutions, there is a significant difference in the proportion between knowledge of oral rehydration solution and the utilization of health care facilities for children under-five with diarrhea (p -value = 0.001).

Tabel 4. Relationship between Predisposing Factors and Utilization of Health Care Facilities for Children Under-five with Diarrhea in Indonesia 2017

Variabel	Swasta %	Pemerintah %	Total %	OR (95% CI)	P value
Maternal Age					0,573
15 - 24 years (<i>ref</i>)	51,5	48,5	25,4	1,00-	-
25 - 29 years	57,2	42,8	26,5	0,79 (0,54-1,17)	0,240
30 - 34 years	57,3	42,7	23,5	0,80 (0,54-1,18)	0,254
35 - 49 years	57,3	42,7	24,6	0,79 (0,54-1,16)	0,237
Mother's Education					0,001
None (<i>ref</i>)	40,4	59,6	0,7	1,00	-
Primary	46,1	53,9	30,7	0,79 (0,22-2,79)	0,715
Secondary/higher	60,2	39,8	68,6	0,45 (0,13-1,54)	0,203
Mother's Occupation					0,001
Housewife/Not Working (<i>ref</i>)	56,1	43,9	51,2	1,00	-
Agriculture	30,3	69,7	9,8	2,93 (1,79-4,82)	0,001*
Semi-Skilled/Unskilled Labor	61,2	38,8	34,3	0,81 (0,60-1,11)	0,186
Professional/Technician	65,6	34,4	4,8	0,67 (0,37-1,20)	0,178
Marital Status					
Not Married (<i>ref</i>)	41,4	58,6	3,9	1,00	-
Married	56,4	43,6	96,1	0,55 (0,29-1,04)	0,065
Age Of Child					0,042
< 1 years (<i>ref</i>)	63,1	36,9	17,6	1,00	-
1 – 2 years	55,2	44,8	55,8	1,39 (0,95-2,02)	0,087
≥ 3 years	52,1	47,9	26,6	1,58 (1,02-2,44)	0,042*
Sex of Child					
Male (<i>ref</i>)	55,1	44,9	51,1	1,00	-
female	56,5	43,5	48,9	0,95 (0,73-1,23)	0,678
Family Size					
< 6 People (<i>ref</i>)	58,2	41,8	63	1,00	-
≥ 6 People	51,6	48,4	37	1,31 (0,98-1,74)	0,069
Previous Use Of Health Service Facilities					0,001
Home (<i>ref</i>)	39,8	60,2	21,2	1,00	-
Government Health Facilities	41	59	32,9	0,95 (0,65-1,39)	0,799
Private Health Facilities	73,7	26,3	46	0,24 (0,16-0,35)	0,001*
knowledge of Oral Rehydration Solutions					0,001
Don't Know (<i>ref</i>)	63,6	36,4	5,7	1,00	-
Have Heard	64,1	35,9	39,1	0,98 (0,51-1,87)	0,949
Have Used	49,1	50,9	55,2	1,82 (0,96-3,44)	0,068

* p-value < 0,05

Relationship between Enabling Factors and Utilization of Health Care Facilities for Children Under-five with Diarrhea in Indonesia 2017

Tabel 5. Relationship between Enabling Factors and Utilization of Health Care Facilities for Children Under-five with Diarrhea in Indonesia 2017

Variabel	Swasta %	Pemerintah %	Total %	95% CI	P value
Socioeconomic Status					0,001
Lowest (<i>ref</i>)	34,8	65,2	22,1	1,00	-
Lower	43,4	56,6	23	0,69 (0,46-1,04)	0,078
Middle	57,7	42,3	21,2	0,39 (0,26-0,59)	0,001
Higher	70,8	29,2	20,9	0,22 (0,14-0,34)	0,001
Highest	86,2	13,8	12,9	0,08 (0,05-0,15)	0,001
Health Insurance Ownership					0,001
Don't Have (<i>ref</i>)	57,9	42,1	41,5	1,00	-
Social Health Insurance	64,7	35,3	22,3	0,75 (0,51-1,10)	0,137
Government Health Insurance	46,9	53,1	34,5	1,55 (1,13-2,13)	0,006*
Private Health Insurance	67	33	1,7	0,68 (0,23-1,96)	0,471
Residential Area					
Rural (<i>ref</i>)	48,1	51,9	56,5	1,00	
Urban	65,7	34,3	43,5	0,48 (0,36-0,65)*	0,001*
Access To Media					
No (<i>ref</i>)	44,1	55,9	15	1,00	-
Yes	57,8	42,2	85	0,57 (0,39-0,84)*	0,005*
Distance					
Problem (<i>ref</i>)	54,8	45,2	11,5	1,00	
No Problem	55,9	44,1	88,5	0,96 (0,62-1,48)	0,840

* p-value < 0,05

Socioeconomic status, there is a difference in the proportion between socioeconomic status and the utilization of health care facilities for children under-five with diarrhea ($p\text{-value} = 0.001$). Health insurance ownership, there is a difference in the proportion of health insurance ownership and the utilization of health care facilities for children under-five with diarrhea ($p\text{-value} = 0.001$). Residential area, there is a difference in the proportion between the area of residence and the utilization of health care facilities for children under-five with diarrhea ($p\text{-value} = 0.001$). Access to media, there is a significant difference between the proportion of watching television at least once a week with the utilization of health care facilities for children under-five with diarrhea ($p\text{-value} = 0.002$). Distance, there is no significant difference in proportion between distance and utilization of health facilities in children under five with diarrhea ($p\text{-value} = 0.840$).

MULTIVARIAT

Multivariate analysis in this study aims to determine the relationship of independent variables in the form of Predisposing factors and Enabling factors together with the dependent variable in the form of utilization of health care facilities in infants with diarrhea by using multivariate logistic regression analysis of determinant models. The multivariate logistic regression determinant model is a model that aims to obtain a model consisting of several independent variables that are considered best for predicting the occurrence of the dependent variable. In this study, all the independent variables are considered important, so that the multivariate analysis of the utilization of health care facilities for children under-five with diarrhea includes all the independent variables in this study.

After the full model in a multivariate analysis that includes all the independent variables in the model is done, the next step is to conduct a confounding test by removing the independent variables who had $p\text{-value} > 0.05$. Expenditure of variables who had $p\text{-value} > 0.05$ is not done simultaneously but is done in stages starting from the variable that has the largest $p\text{-value}$. After certain variables are removed from the model, the next step is to evaluate the change in OR values for the variables that are still in the model. Calculation of changes in OR values is done between before and after certain variables are excluded from the model. If there is one OR value on the variable in the model changes > 10 percent then the variable that has been excluded is put back into the model. This process is carried out continuously for variables who had $p\text{-value} > 0.05$ and is stopped when all variables that have $p\text{-value} > 0.05$ have been tested.

Determinants of Health Care Facilities Utilization for Children Under-five with Diarrhea in Indonesia 2017

Tabel 6. Determinants of Health Care Facilities Utilization for Children Under-five with Diarrhea in Indonesia 2017

Variabel	AOR	95% CI	p-value
Previous Use Of Health Service Facilities			
Home (ref)	1,00	-	-
Government Health Facilities	1,36	0,91-2,04	0,132
Private Health Facilities	0,39	0,26-0,60	0,001
Socioeconomic Status			
Lowest (ref)	1,00	-	-
Lower	0,80	0,51-1,25	0,321
Middle	0,54	0,34-0,87	0,011
Higher	0,30	0,18-0,50	0,001
Highest	0,13	0,07-0,25	0,001
Residential Area			
Rural (ref)	1,00	-	-
Urban	0,85	0,59-0,1,19	0,348
Access To Media Information			
No (ref)	1,00	-	-
Yes	0,74	0,46-1,19	0,221

*: $p\text{-value} < 0,05$

Based on the results of the multivariate analysis in table 6. it is known, the variables that are significantly related to the utilization of health care facilities for children under-five with diarrhea in Indonesia are the utilization of health care facilities before (delivery place) and socioeconomic status. Whereas the variable area of residence and access to media is confounding. The children under-five with diarrhea who have been born in private health facilities have less chance (AOR: 0.39; 95% CI: 0.26-0.60) to get treatment at a government health facility, in other words children under-five with diarrhea who have been born in private health facilities 2.5 times more likely to get treatment at a private health facility when suffering from diarrhea compared with children who have been born at home after being controlled by socioeconomic status variables, appropriate areas of residence, and access to media. The children under-five with diarrhea from mothers with highest socioeconomic status have less chance (AOR: 0.13; 95% CI: 0.07-0.25) to get treatment at a government health facility, in other words children under-five with diarrhea from mothers with highest socioeconomic status group have 7.69 times the opportunity to get treatment in private health facilities compared to children under-five who come from mothers with the lowest socioeconomic status after being controlled by variables of the use of previous health service facilities (birthplaces), residential areas and access to media.

IV. DISCUSSION

Predisposing factors illustrate that each individual has a tendency to use different health services due to different individual characteristics. These characteristics can be classified into three groups named in the form of demographic characteristics, such as gender, age, marital status; social structure, which reflects a person's status in the environment such as education and employment levels; and Health belief or belief, that selected health services can heal. [6].

Among these predisposing factors related to the utilization of health service facilities for diarrhea infants in Indonesia is the use of previous health service facilities (delivery places). Previous experience in the use of health care facilities can be a reference for mothers in seeking medical care when their children had diarrhea. With direct experience with health facilities or health workers, mothers will know where medical help can be obtained when their child experiences pain. The results of this study indicate there is a relationship between the utilization of health care facilities before (delivery place) with the utilization of health care facilities for children under-five with diarrhea. In children who have been born in health facilities or private health workers are more likely to get treatment in health facilities or private health workers compared to children who have been born at home. This is in line with research conducted in India that compares the use of government health facilities with non-users as well as the utilization of private health care facilities with non-users found that compared with children who have been born at home, the group of children who have been born in health facilities tended to bring their child to health care facilities when children under-five suffer from diarrhea [7].

According to Anderson (1974) in Notoatmodjo (2003), enabling factors are a description of conditions or conditions that make a person able to take action to meet the needs of health services. Enabling factors consist of family resources in the form of family income, the level of participation in health insurance, the ability to purchase health services and the knowledge of health care information needed. Community resources, such as the number of health service facilities available, the number of health workers available in the area, the ratio of population to health workers, and the location of residential areas. In this study, the variables used to describe the utilization of health care facilities in infants with diarrhea based on these enabling factors in the form of socioeconomic status, ownership of health insurance, residential areas, access to information media and distance to health care facilities [6]. Among these enabling factors, in this study, it was found that associated with the utilization of health care facilities for children under-five with diarrhea in Indonesia is socioeconomic status. Diarrhea patients with diarrhea originating from the top wealth index quintile tend to get treatment in private health facilities compared to diarrhea sufferers from the lowest group.

This shows that government health facilities are the choice to get treatment for most of the children under five with diarrhea from the group of mothers who come from the lower middle and lower socioeconomic status. This result is in line with research conducted by Bunsoth et.al (2013) in Cambodia which showed that the group of mothers who were in the middle This shows that government health facilities are the choice to get treatment for most of the children under five with diarrhea from the group of mothers who come from the lower middle and lower socioeconomic status. This result is in line with research conducted by *Bunsoth et.al* (2013) in Cambodia which showed that the group of mothers who were in the middle significantly tended to utilize private health care facilities when their children were sick compared to mothers who were at the lowest level [8]. Similar results were also found in studies conducted by *Thin* (2005) in Indonesia, compared with toddlers who came from families with the lowest asset index scores, while children who came from families with the highest asset index scores tended to use private service facilities when their children have respiratory infections [9]. In line with this, research conducted in India found that, in the group of mothers who came from the richest households, they had almost 3 times the opportunity to bring their children to private health care facilities when experiencing diarrhea compared to mothers from the poorest households [7].

V. CONCLUSION

This study found that 55.7 percent of children under five suffering from diarrhea in Indonesia 2017 received treatment at a private health facility, while another 44.3 percent received treatment at a government health facility. Predisposing factors in the form of the use of previous health service facilities (delivery places) and enabling factors in the form of socioeconomic status are related to the utilization of health care facilities for children under-five with diarrhea in Indonesia.

VI. SUGGESTION

Factors related to the utilization of health service facilities for infants with diarrhea in Indonesia are in the form of mothers' experience in the use of previous health service facilities (delivery places) and the mother's socioeconomic status. The Indonesian government needs to make efforts to require every health worker who helps with the delivery process to provide sufficient information about the health of children under five to post-partum mothers by health workers who assist in the delivery process in health care facilities. The information conveyed includes symptoms of the disease to the actions that can be taken by the mother if a children has diarrhea. With the discovery of dominant factors related to the utilization of health service facilities for children under-five with diarrhea in the form of socioeconomic status, it is expected for the government to be able to provide maximum services for children under-five with diarrhea especially children who come from the lowest socioeconomic status.

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